said optical amplification means includes a semiconductor laser according to claim 21.

30. A packaged all-optical unit with at least one optical input and at least one optical output and optical transmission means between each said optical input and one or more of said optical outputs,
said optical transmission means comprising at last one semiconductor laser according to claim 21.

Remarks

The examiner's reconsideration of the application is requested in view of the new claims set forth above and comments which follow.

The examiner rejected previous claims 13 and 14 under 35 U.S.C. § 112 as being indefinite. When crafting the new claims, the matters raised by the examiner have considered and it is believed that the new claims are appropriate and accurate.

The examiner rejected former claims 1, 4, 7 and 10 under 35 U.S.C. §102 as being anticipated by Thompson US Patent Number 3,943,462. The remaining claims were rejected by the examiner under 35 U.S.C. §103, again with Thompson being the primary reference, either in view of Arao U.S. Patent Number 6,432,620 or Ueno U.S. Patent Number 6,285,700. Reconsideration is requested.

The Thompson patent has been cited in the specification of the present application as prior art. It is correct that Thompson discloses a quarter-wave anti-reflection coating, but this is a multi-layer coating. In contrast, the present invention is directed to a single-layer homogeneous coating. This is a significant difference from the prior art, and the new claims make this quite clear. For that reason alone, it is submitted that the new claims distinguish from Thompson.

In addition, the new claims are directed to the method, only. One feature of the invention is to use a PE-CVD process for producing the homogeneous coating and controlling the parameters of the process for achieving a desired refraction index and/or a desired density

of the coating layer. This feature of the invention has also been brought out in the new claims, and is not, in any manner, suggested by Thompson.

Turning to the secondary references cited by the examiner, Ueno discloses a single-layer coating which complies with certain given rules or equations, and thus appears to be more pertinent prior art than Thompson. However, Ueno also discloses an additional protective layer between the laser body and the coating layer, resulting in a multi-layer structure which teaches away from the single-layer of the present invention.

Also, Ueno does not disclose the method of the present invention used for making the single-layer coating, nor does Ueno address the particular PE-CVD process used by the present invention.

As the examiner will appreciate, the technology of semi-conductor layers is well established and the majority of inventions in this field comprise improvements of known technology. A great many coatings and coating processes are known and are being used. Considering this, the fact that neither Thompson, nor Ueno, nor Arao, either alone or in combination of their teachings, discuss or address the possibility of using the coating process for adjusting the refractive index of a homogeneous coating layer makes it clear, it is submitted, that the present invention, as claimed, defines a patentable invention over the references, whether the references are considered alone or in combination. There is nothing in the teachings of the references that would suggest the single-layer, homogeneous coating process of the present invention.

Given the above and the new claims, it is submitted that the application is in condition for allowance, and the examiner's further and favorable reconsideration in that regard is urged.

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Respectfully submitted,

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